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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/632,412	08/04/2000	Swarn S. Kalsi	05770-135001	1918

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EXAMINER

MULLINS, BURTON S

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 03/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/632,412

Applicant(s)

KALSI, SWARN S.

Examiner

Burton S. Mullins

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-13 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

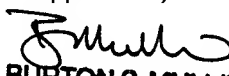
- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____


BURTON S. MULLINS
PRIMARY EXAMINER

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-3, 5-13 and 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation “a second conductor wound, in hand, over the first conductor” is still indefinite. Applicant states that “in-hand” simply means “placing a number of conductors one over the other and winding them together in a coil-like fashion.” This seems to agree with Rosenberg et al., “Electric Motor Repair,” p.14, which defines in-hand wires as “two or more strands of a smaller wire...used instead of one strand of a larger size.” The synonym “in parallel” is also used by Rosenberg, so the meaning of the term is not as specific as applicant’s meaning. Nevertheless, claims 1 and 11 recite “...a first conductor, a second conductor wound, in-hand, over the first conductor....” The above definitions use the term “in-hand” to refer to multiple windings; however, claims 1 and 11 refer only to one (the second) winding as being wound “in-hand.” Does applicant mean that first and second conductors together form a two “in-hand” winding; or that the second conductor comprises an “in hand” winding, i.e., that the second conductor comprises a number of conductors one over the other? Also, it is not clear if the recitation “in-hand” is product-by-process claim terminology, i.e., that the first conductor is placed over a second conductors and then winding them parallel to one another.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-3, 9-13 and 19-20, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Liwschitz-Garik (*Winding Alternating Current Machines*, pp.1-25, 1950). Liwschitz-Garik teaches two-layer stator coil winding (Fig.1-4) including first and second electrical conductors wound one over the other along the longitudinal axis, with connected ends. Regarding claim 3, as best understood, the end of the first conductor is wound over the second conductor along the axis (Figs.1-4 & 2-3c) in a double-layer winding scheme. Regarding copper conductors, these are explicitly taught at p.19, line 18. Regarding “in-hand” coils, the coils 20 and 30 (as denoted in applicant’s reproduction) are wound “in-hand” since they are wound in parallel and comprise two conductor strands 20 and 30 of a smaller size instead of one strand of a larger size, as in Fig.1-3. This fulfills the definition of “in-hand” supplied by Rosenberg et al. in “Electric Motor Repair” p.14, 1986.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 5-8 and 15-18, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Liwschitz-Garik in view of Flick (US 4,427,907). Liwschitz-Garik teaches the general structure of the stator windings but does not teach pancake coils, per se (claim 5). Flick teaches pancake windings with race-track shape (Fig.3). The pancake windings allow for

easier inspection and maintenance (c.1, lines 55-63). It would have been obvious for one of ordinary skill in the art to provide pancake windings per Flick on the coil structures of Liwschitz-Garik to make it more amenable for inspection and maintenance

Response to Arguments

6. Applicant's arguments filed 1-29-02 have been fully considered but they are not persuasive. Applicant argues that Liwschitz-Garik "does not wind, in-hand, a second conductor over a first conductor." First, as explained above, the meaning of applicant's term "in-hand" as recited in claims 1 and 11 is vague and indefinite, so it is rather pointless to argue that a reference does not fulfill limitations which are vague and indefinite to begin with. Second, even using applicant's more narrow definition of the term "in-hand," the two-layer winding of Liwschitz-Garik is a two "in-hand" winding since the first coil 20 and second coil 30 comprise first and second conductors insulated from each other and wound in parallel with each other, with the second, inner coil 20 placed over the first, outer coil 30.

Conclusion

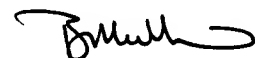
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chari teaches a superconductive stator with conductors 36" and 36"' forming in-hand wound stator coil (Fig.4). Albright teaches a superconducting machine with insulated conductors 36 wound in-hand.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 305-7063. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are 305-1341 for regular communications and 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0956.



BURTON S. MULLINS
PRIMARY EXAMINER

3/12/02